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Test 1719: White 6215 Diesel 18-Speed (Chassis S/N 602001PL and Higher)

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NEBRASKA OECD TRACTOR TEST 1719—SUMMARY 214

WHITE 6215 DIESEL

18 SPEED

(CHASSIS SERIAL NUMBERS 602001PL AND HIGHER)

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal./hr (l/h)	lb./hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed—(PTO speed—1055 rpm)					
215.44 (160.66)	2200	14.09 (53.32)	0.458 (0.279)	15.30 (3.01)	
Standard Power Take-off Speed (1000 rpm)					
230.68 (172.02)	2086	14.37 (54.40)	0.437 (0.266)	16.05 (3.16)	
Maximum Power (2 hours)					
247.81 (184.79)	1900	14.56 (55.10)	0.412 (0.251)	17.02 (3.35)	

VARYING POWER AND FUEL CONSUMPTION

215.44 (160.66)	2200	14.09 (53.32)	0.458 (0.279)	15.30 (3.01)	Air temperature
186.94 (139.40)	2244	12.75 (48.26)	0.478 (0.291)	14.66 (2.89)	75°F (24°C)
143.21 (106.79)	2291	10.61 (40.16)	0.520 (0.316)	13.50 (2.66)	Relative humidity
97.37 (72.61)	2345	8.51 (32.23)	0.613 (0.373)	11.44 (2.25)	30%
49.51 (36.92)	2384	6.16 (23.32)	0.873 (0.531)	8.04 (1.58)	Barometer
1.10 (0.82)	2419	4.32 (16.36)	27.438 (16.690)	0.26 (0.05)	29.04"Hg (98.34 kPa)

Maximum Torque 766 lb.-ft. (1038 Nm) at 1400 rpm
Maximum Torque Rise 48.9%
Torque rise at 1800 rpm 38%

DRAWBAR PERFORMANCE (UNBALLASTED)

FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb./hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp. °F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Maximum Power—11th Gear									
185.60 (138.40)	8965 (39.88)	7.76 (12.49)	2192	3.08	0.532 (0.324)	13.17 (2.60)	188 (87)	48 (9)	28.74 (97.32)
75% of Pull at Maximum Power—11th Gear									
145.81 (108.73)	6764 (30.09)	8.08 (13.01)	2265	2.17	0.577 (0.351)	12.16 (2.40)	187 (86)	49 (9)	28.70 (97.19)
50% of Pull at Maximum Power—11th Gear									
99.83 (74.45)	4497 (20.00)	8.33 (13.40)	2317	1.53	0.687 (0.418)	10.21 (2.01)	186 (86)	50 (10)	28.68 (97.12)
75% of Pull at Reduced Engine Speed—13th Gear									
145.62 (108.59)	6767 (30.10)	8.07 (12.99)	1687	2.27	0.468 (0.285)	14.98 (2.95)	185 (85)	50 (10)	28.69 (97.12)
50% of Pull at Reduced Engine Speed—13th Gear									
99.88 (74.48)	4492 (19.98)	8.34 (13.42)	1731	1.62	0.529 (0.322)	13.26 (2.61)	184 (84)	50 (10)	28.67 (97.09)

Location of Test: Tractor Testing Laboratory,
University of Nebraska, Lincoln, Nebraska 68583-
0832

Dates of Test: October 25-November 7, 1996

Manufacturer: AGCO Corporation, Duluth,
Georgia 30136

FUEL OIL and TIME: Fuel No. 2 Diesel Cetane
No. 50.6 Specific gravity converted to 60°/60°
F (15°/15°C) 0.8422 Fuel weight 7.012 lbs/gal
(0.840 kg/l) Oil SAE 15W-40 API service
classification CE-II, CD To motor 4.316 gal
(16.339 l) Drained from motor 3.912 gal (14.810 l)
Transmission and hydraulic lubricant AGCO
Power Fluid 821XL Front axle lubricant AGCO
Gear Lube 715 SAE 80W-90 Total time engine
was operated 27.0 hours.

ENGINE: Make Consolidated Diesel Corporation
Diesel Type six cylinder vertical with turbocharger
and intercooler Serial No. 45366811 Crankshaft
lengthwise Rated engine speed 2200 Bore and
stroke (as specified) 4.488" × 5.315" (114.0 mm × 135
mm) Compression ratio 16.5 to 1 Displacement
505 cu in (8268 ml) Starting system 12 volt
Lubrication pressure Air cleaner two paper
elements and aspirator Oil filter two full flow cartridges
Oil cooler engine coolant heat exchanger for crankcase
oil, radiator for hydraulic and final drive oil, radiator
for transmission oil Fuel filter two paper elements
Muffler underhood Exhaust vertical Cooling
medium temperature control two thermostats.

ENGINE OPERATING PARAMETERS: Fuel
rate: 95.8-101.4 lb/h (43.5-46.0 kg/h) High idle:
2380-2480 rpm Turbo boost nominal 21.8 psi (150
kPa) as measured 22.7 psi (156 kPa)

CHASSIS: Type front wheel assist Serial No.
602319P Tread width rear 64.1" (1560 mm) to 126.6"
(3216 mm) front 58.7" (1490 mm) to 89.6" (2276 mm)
Wheel base 115.0" (2921 mm) Hydraulic control
system direct engine drive Transmission selective
gear fixed ratio with full range operator controlled
powershift Nominal travel speeds mph (km/h)
first 1.64 (2.63) second 1.94 (3.14) third 2.22 (3.54)
fourth 2.50 (4.02) fifth 3.00 (4.83) sixth 3.52 (5.58)
seventh 4.11 (6.63) eighth 4.89 (7.89) ninth 5.70 (9.18)
tenth 6.72 (10.83) eleventh 7.79 (12.55) twelfth 9.16
(14.76) thirteenth 10.64 (17.12) fourteenth 12.54
(20.11) fifteenth 14.60 (23.47) sixteenth 17.09 (27.48)
seventeenth 20.32 (32.71) eighteenth 23.79 (38.28)
reverse 1.90 (3.06), 2.33 (3.75), 2.70 (4.34), 3.11 (5.00),
3.59 (5.80), 4.24 (6.84), 5.10 (8.20), 5.92 (9.53), 7.03
(11.32) Clutch multiple wet disc electro-hydraulically
actuated by foot pedal Brakes wet multiple disc
hydraulically actuated by two foot pedals which can be
locked together Steering hydrostatic Power take-

DRAWBAR PERFORMANCE (UNBALLASTED TRACTOR) MAXIMUM POWER IN SELECTED GEARS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp. °F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
6th Gear									
153.01 (114.10)	18409 (81.89)	3.12 (5.02)	2241	14.76	0.617 (0.376)	11.36 (2.24)	186 (85)	49 (9)	28.86 (97.73)
7th Gear									
176.83 (131.87)	17504 (77.86)	3.79 (6.10)	2178	9.52	0.558 (0.339)	12.57 (2.48)	186 (86)	53 (12)	28.86 (97.73)
8th Gear									
195.09 (145.48)	17236 (76.67)	4.25 (6.83)	2024	7.86	0.523 (0.318)	13.42 (2.64)	187 (86)	47 (8)	28.73 (97.29)
9th Gear									
205.72 (153.41)	16353 (72.74)	4.72 (7.59)	1903	6.71	0.495 (0.301)	14.16 (2.79)	188 (87)	48 (9)	28.75 (97.36)
10th Gear									
211.91 (158.02)	14313 (63.67)	5.55 (8.94)	1900	5.53	0.481 (0.293)	14.57 (2.87)	188 (86)	48 (9)	28.75 (97.36)
11th Gear									
214.48 (159.93)	12068 (53.68)	6.66 (10.73)	1905	4.14	0.476 (0.289)	14.74 (2.90)	188 (87)	48 (9)	28.73 (97.29)
12th Gear									
212.04 (158.12)	10118 (45.00)	7.86 (12.65)	1905	3.35	0.483 (0.294)	14.51 (2.86)	188 (87)	48 (9)	28.72 (97.26)
13th Gear									
210.65 (157.08)	8737 (38.86)	9.04 (14.55)	1903	2.90	0.485 (0.295)	14.46 (2.85)	188 (87)	49 (9)	28.71 (97.22)

DRAWBAR PERFORMANCE (BALLASTED TRACTOR) MAXIMUM POWER IN SELECTED GEARS

4th Gear									
165.01 (123.04)	26448 (117.65)	2.34 (3.77)	2231	10.73	0.584 (0.355)	12.01 (2.37)	186 (86)	47 (8)	28.83 (97.63)
5th Gear									
184.55 (137.62)	25491 (113.39)	2.71 (4.37)	2129	8.39	0.539 (0.328)	13.01 (2.56)	187 (86)	47 (8)	28.83 (97.63)
6th Gear									
199.84 (149.02)	25213 (112.15)	2.97 (4.78)	1989	8.07	0.514 (0.312)	13.65 (2.69)	187 (86)	48 (9)	28.84 (97.66)
7th Gear									
210.44 (156.93)	23027 (102.43)	3.43 (5.52)	1901	5.77	0.484 (0.294)	14.48 (2.85)	188 (87)	49 (10)	28.85 (97.70)
8th Gear									
210.79 (157.19)	19150 (85.18)	4.13 (6.64)	1904	4.31	0.485 (0.295)	14.46 (2.85)	188 (87)	51 (11)	28.85 (97.70)
9th Gear									
210.60 (157.04)	16219 (72.15)	4.87 (7.84)	1903	3.34	0.483 (0.294)	14.50 (2.86)	188 (87)	51 (11)	28.85 (97.70)
10th Gear									
214.74 (160.13)	14163 (63.00)	5.69 (9.15)	1904	2.90	0.473 (0.287)	14.84 (2.92)	188 (87)	51 (11)	28.85 (97.70)
11th Gear									
214.77 (160.15)	11883 (52.86)	6.78 (10.91)	1911	2.36	0.475 (0.289)	14.77 (2.91)	188 (87)	52 (11)	28.84 (97.66)
12th Gear									
210.52 (156.98)	9905 (44.06)	7.97 (12.83)	1913	2.08	0.486 (0.295)	14.43 (2.84)	188 (87)	52 (11)	28.84 (97.66)
13th Gear									
207.84 (154.99)	8574 (38.14)	9.09 (14.63)	1900	1.72	0.490 (0.298)	14.32 (2.82)	188 (87)	52 (11)	28.84 (97.66)

off 1000 rpm at 2084 engine rpm **Unladen tractor mass** 19310 lb (8759 kg)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

NOTE: The performance figures on this report apply to tractor chassis serial numbers 602001PL and higher.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. For the maximum power tests, the fuel temperature at the injection pump return was maintained at 154°F (68°C). The pull in 4th gear (ballasted tractor) was limited to avoid excessive tractor bouncing. The performance results on this summary were taken from OECD tests conducted under the Code II Restricted Standard Test Code procedure.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **1719**, Summary 214, November 26, 1996.

LOUIS I. LEVITICUS
Engineer-in-Charge

L.L. BASHFORD
G.J. HOFFMAN
M.F. KOCHER
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB**dB(A)**

At 75% load in 8th Gear	79.0
Bystander in 18th Gear	88.5

TIRES, BALLAST AND WEIGHT**Rear Tires**—No., size, ply & psi (kPa)**Ballast**—Liquid (total)

—Duals (total)

Front Tires—No., size, ply & psi (kPa)**Ballast**—Liquid (total)

—Cast Iron (total)

Height of Drawbar**Static Weight with Operator**—Rear

—Front

—Total

With Ballast

Four 20.8R42; **, 14 (95)

2186 lb (992 kg)

1940 lb (880 kg)

Two 16.9R30; **, 24 (165)

None

1936 lb (878 kg)

21.5 in (545 mm)

16290 lb (7389 kg)

9248 lb (4195 kg)

25538 lb (11584 kg)

Without Ballast

Two 20.8R42; **, 20 (140)

None

None

Two 16.9R30; **, 24 (165)

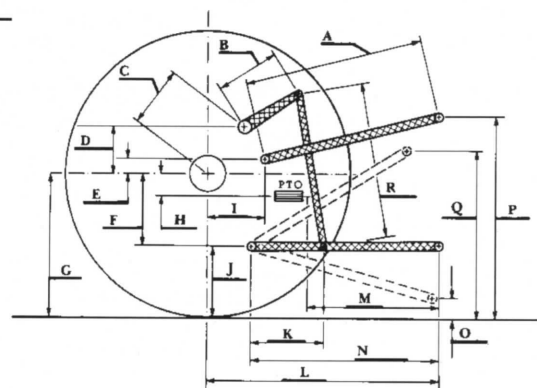
None

21.0 in (535 mm)

12758 lb (5787 kg)

6718 lb (3047 kg)

19476 lb (8834 kg)

**THREE POINT HITCH PERFORMANCE (OECD Static Test)**

CATEGORY: III

Quick Attach: None

Maximum Force Exerted Through Whole Range:

13113 lbs (58.3 kN)

i) Opening pressure of relief valve:

NA

Sustained pressure with pump stalled:

2770 psi (191 bar)

ii) Pump delivery rate at minimum pressure and rated engine speed:

27.3 GPM (103.3 l/min)

iii) Pump delivery rate at maximum

hydraulic power:

25.6 GPM (96.9 l/min)

Delivery pressure:

2350 psi (162 bar)

Power:

35.1 HP (26.2 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	mm	inch	mm
A	26.8	679	27.8	705
B	23.7	603	23.7	603
C	19.8	503	19.8	503
D	18.0	457	18.0	457
E	11.4	289	11.4	289
F	10.6	269	10.6	269
G	36.2	920	36.2	920
H	3.5	89	3.5	89
I	19.4	492	19.4	492
J	25.6	651	25.6	651
K	26.6	676	26.6	676
L	47.0	1195	47.0	1195
M	25.5	647	25.5	649
N	36.5	928	36.5	928
O	9.0	229	8.0	203
P	52.9	1343	47.9	1217
Q	42.0	1067	38.5	978
R	41.0	1041	42.6	1082

THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed Maximum Pressure psi. (bar)

2650 (183)

Location

lift cylinder

Hydraulic oil temperature °F (°C)

140 (60)

Location

hydraulic pump

Category

III

Quick attach

none

Hitch point distance

to ground level in.

8.0

16.0

24.0

32.0

40.0

to ground level (mm)

(203)

(406)

(610)

(813)

(1010)

Lift force on frame lb.

19548

16128

16668

16830

16812

Lift force on frame (kN)

(87.0)

(71.7)

(74.1)

(74.9)

(74.8)

**WHITE 6215 DIESEL**

Agricultural Research Division
 Institute of Agriculture and Natural Resources
 University of Nebraska—Lincoln
 Darrell Nelson, Dean and Director